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5 NON-PROVISIONAL UTILITY PATENT APPLICATION

For a

GOLF PUTTER HEAD HAVING MULTIPLE STRIKING SURFACES

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20 CROSS-REFERENCE TO RELATED APPLICATIONS

Not applicable.

25 STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

Not applicable.

BACKGROUND OF THE INVENTION

The present invention relates to a head for a golf club more commonly known as a putter. A golf putter head that can be 5 used to strike a golf ball with both a typical pendulum type motion and shuffleboard-like motion is desired. Additionally, a golf putter head used in a shuffleboard-like motion that does not become entangled with the ground and that encourages topspin when striking the ball is also desired. Further, a golf putter 10 head that allows a golfer to select a shaft angle from a variety of preset angles and then to permanently affix the shaft at the desired angle is also desired.

BRIEF SUMMARY OF THE INVENTION

It is an object of the present invention to provide a golf 15 putter head that is capable of striking a golf ball by using a standard pendulum motion or, if desired, a shuffleboard-like motion.

It is a further object of the present invention to provide a golf putter head that is capable of striking a golf ball using 20 a shuffleboard-like motion without the putter head snagging or becoming entangled with the ground.

It is another object of the present invention to provide a golf putter head that is capable of encouraging topspin when a

golf ball is struck using the putter in a shuffleboard-like motion.

It is another object of the present invention to provide a golf putter head that will accommodate a golf putter shaft at 5 different angles relative to the putter head. Additionally, it is an object of the present invention to allow a golfer to select the desired angle of the shaft, from a variety of preset angles, and then to permanently affix the shaft at the selected angle.

10 It is another object of the present invention to provide a golf putter head capable of being used by both a left-handed or right-handed golfers for either striking a golf ball by using a standard pendulum motion or, if desired, a shuffleboard-like motion.

15 These and other objects are accomplished by a golf putter head having a top, a bottom, two flat striking surfaces, two curvilinear striking surfaces and a shaft receiving aperture.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a side view of a golf putter head made in 20 accordance with one embodiment of the present invention.

Figure 2 is an isometric view of a golf putter head, made in accordance with the first embodiment, striking a golf ball with the substantially flat striking surface.

Figure 3 is an isometric view of a golf putter head, made in accordance with the first embodiment, striking a golf ball with the curvilinear striking surface.

Figure 4 is a side view of a golf putter head made in accordance with a second alternate embodiment of the present invention.

Figure 5 is a bottom view of a golf putter head made in accordance with a third alternate embodiment of the present invention.

Figure 6 is an end view of a golf putter head made in accordance with the third alternate embodiment of the present invention.

Figure 7 is a side view of a golf putter head made in accordance with the third alternate embodiment, striking a golf ball with the curvilinear striking surface.

Figure 8 is a side view of a golf putter head made in accordance with a fourth alternate embodiment of the present invention.

Figure 9 is a side view of an insert as shown in Figure 8.

Figure 10 is a side view of a golf putter head made in accordance with a fifth alternate embodiment of the present invention.

Figure 11 is an end view of a golf putter head made in accordance with the fifth alternate embodiment of the present invention.

Figure 12 is a side view of a golf putter head made in accordance with a sixth alternate embodiment of the present invention.

Figure 13 is a side view of a golf putter head made in accordance with a seventh alternate embodiment of the present invention.

10 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The golf putter head in its first embodiment 19, as shown in Figures 1, 2 and 3, comprises a putter having a top 10, a bottom 11, two flat striking surfaces 12 and 13 and two curvilinear striking surfaces 14 and 15 and an aperture 16. The 15 golf putter head is preferably made from aluminum. However, one of skill in art will recognize that other materials may be utilized. The top 10 and bottom 11 are substantially flat. The aperture 16 is located on the top 10 and receives the base of a golf club shaft 17. The internal radii of the two curvilinear 20 striking surfaces 14 and 15 can be of different dimensions but preferably range from 0.84 inches to 0.9375 inches. Accordingly, the height of the golf putter head, or distance between the top 10 and bottom 11, can be of different dimensions but preferably ranges from 1.68 inches to 1.875 inches. The

width of the golf putter head, or distance between the two flat striking surfaces 12 and 13, can be of different dimensions but preferably ranges from 2.125 inches to 2.375 inches. The length of the golf putter head, or distance between the two curvilinear 5 striking surfaces 14 and 15, can be of different dimensions but preferably ranges from 4.375 inches to 4.625 inches. One skilled in the art, however, will recognize that the size of the golf putter head can vary to better suit the needs of individual golfers.

10 The design of the golf putter head allows a golf ball to be struck with two different motions. First, the golf putter head can be used in the conventional method by grasping the shaft 17 and swinging the golf putter head with a pendulum or putting swing motion striking the golf ball, as shown in Figure 15 2, with either of the two flat striking surfaces 12 or 13. Second, the golf putter head can be used by grasping the shaft 17 and pushing the golf putter head in a shuffleboard-like motion, striking the golf ball, as shown in Figure 3, with either of the two curvilinear striking surfaces 14 or 15. 20 Because the golf putter head provides two flat striking surfaces 12 and 13, the golf putter head when swung using a pendulum motion can be used by both right-handed and left-handed golfers. Similarly, the golf putter head can be used via the

shuffleboard-like motion by both right-handed and left-handed golfers.

Further, when the putter is used with a pendulum motion to strike a golf ball with either of the two flat striking surfaces 5 12 or 13, the striking surface will contact the golf ball at a point, referred to as the first striking line 17a, on the flat striking surface 12 or 13 that coincides with the horizontal midline of the golf ball. In other words, when the putter is swung in a pendulum motion with either of the two flat striking 10 surfaces 12 or 13 perpendicular to the horizontal midline of a golf ball, the golf ball will be struck at its midline regardless of where the golf ball contacts the flat striking surface 12 or 13.

When the putter is used with a shuffleboard-like motion to 15 strike a golf ball with either of the two curvilinear striking surfaces 14 or 15, the striking surface will contact the golf ball at a point, referred to as the second striking line 18, on the curvilinear striking surface 14 or 15 that coincides with a point on the golf ball equal to or higher than its horizontal 20 midline. In other words, the preferred radii of the two curvilinear striking surfaces 14 and 15 are of such dimensions that when the golf putter head is used in the shuffleboard-like motion, as shown in Figure 3, and a golf ball is struck with either of the two curvilinear striking surfaces 14 or 15 the

golf ball is struck above its horizontal midline, causing the golf ball to have a topspin at impact. The topspin created at impact is advantageous in that it helps the golf ball begin rolling without skipping, sliding or bouncing. Further, the two 5 curvilinear striking surfaces 14 and 15 provide relief from the ground in that there are no sharp corners leading from the curvilinear striking surfaces 14 and 15 to the bottom 11. This relief allows the golf putter head to be pushed in the shuffleboard-like motion without the putter getting entangled 10 with the ground.

Figure 4 shows a second alternate embodiment having generally the features of the first embodiment in Figures 1, 2 and 3 except that the top 20 of the golf putter head 22 contains a concaved portion 21. The radius of concaved portion 21 can be 15 of different dimensions but preferably is 1 inch.

Figures 5 and 6 show a third alternate embodiment having generally the features of the second embodiment as shown in Figure 4 except that the bottom 31 of the golf putter head 36 contains two recessed portions 32 and 33. These recessed portions 32 and 33 can be of any shape but are preferably semicircular. Additionally, the recessed portions 32 and 33 can be of any depth but are preferably $\frac{1}{4}$ inch deep. The recessed portions 32 and 33 function to provide clearance for the golf ball when the golf putter head is positioned and pushed in the 20

shuffleboard-like motion striking the golf ball as shown in Figure 7. The recessed portions 32 and 33 allow the golf ball to be struck with either of the curvilinear striking surfaces 34 or 35 without the golf ball coming into contact with the bottom 5 31.

Figure 8 shows a fourth alternate embodiment having generally the features of the first embodiment in Figure 1 except that the top 41 of the golf putter head 43 contains an insert 42. The insert 42, as better seen in Figure 9, is 10 generally six-sided with each side capable of containing an aperture. Preferably, the insert 42 contains one aperture on each of four sides of the insert with one of each apertures being at an angle of 12.5 degrees, 15 degrees, 17.5 degrees and 20 degrees from vertical. The insert 42 allows the golfer to 15 vary the angle of the golf club shaft by placing the insert 42 into the top 41 with the desired, angled aperture exposed. Once the desired aperture is selected, the insert 42 can be affixed within the golf putter head by using an adhesive. Thereafter, the base of a golf putter shaft can be affixed within the 20 exposed aperture.

Referring to Figures 10 and 11, a fifth alternate embodiment is shown wherein the top 51 of the golf putter head 66 has three convex portions 52, 53 and 54. Likewise, the bottom 59 has three convex portions 55, 56 and 57. The radii of

convex portions 52 through 57 are of equal dimensions.

Preferably, the convex portions 52 through 57 have radii ranging from 0.8125 inches to 0.9375 inches. Alternatively, the convex portions 53 and 56 have radii of equal dimensions but less than 5 those radii of convex portions 52, 54, 55 and 57. The convex portions 55, 56 and 57 of bottom 59 result in less surface area coming in contact with the ground when the golf putter head is pushed using the shuffleboard-like motion. Also, the golf putter head, as in the preferred embodiment, has two flat 10 striking surfaces 60 and 61 and two curvilinear striking surfaces 62 and 63. Further, the bottom 59 has two beveled edges 64 and 65 located adjacent to the two flat striking surfaces 60 and 61. The beveled edges 64 and 65 provide relief from the ground so that the golf putter head can be swung with a 15 pendulum like motion when using either of the two flat striking surfaces 60 and 61 without the flat striking surface 60 and 61 getting entangled with the ground. What is more, as in the preferred embodiment, the golf putter head shown in Figures 10 and 11 can also be used in a shuffleboard-like motion striking a 20 golf ball with either of the two curvilinear striking surfaces 62 and 63.

Referring to Figure 12 a sixth alternate embodiment is shown having generally the features of the second embodiment shown in Figure 4 except that the golf putter head 73 contains

an inset 70. The inset 70 is flush with the two flat striking surfaces and is composed of material different from that of the two flat striking surfaces. The inset 70 is preferably made of Delrin® plastic. However, one of skill in the art will 5 recognize that other materials may be used. The inset 70 provides a striking surface with a different hardness. As a result, the inset 70, depending on the material used, provides a different feel when striking a golf ball.

Referring to Figure 13, a seventh alternate embodiment is 10 shown having generally the features of the sixth embodiment in Figure 12 except that the golf putter head 80 has a top 85 and curvilinear striking surfaces 81 and 82 formed from a sheet of material. In other words, the material forming the top 85 and curvilinear striking surfaces 81 and 82 and the inset 83 form an 15 aperture 84.

The detailed description contained hereinabove shall not be construed as a limitation of the following claims, as it will be readily apparent to those skilled in the art that design choices may be made changing the materials, construction, or 20 configuration of the golf putter head without departing from the spirit and scope of the claimed invention.